

ABSTRACT

An apparatus and method for ballasting and de-ballasting a vessel having a hull with a plurality of watertight ballast compartments wherein each ballast compartment has an individual pump caisson extending vertically to the top of the hull, but the ballast/de-ballast
5 system contains no valves within the hull. An external caisson is used to provide a source of seawater. Several submersible pumps are available for rigging into and out of the internal and external caissons and provide the ballast and de-ballast operations via an installed manifold system at the top of the columns. Venting of the ballast tanks may be accomplished through a connection to atmosphere near the top of the pump caissons.